

**FIG. 1**  
(PRIOR ART)

2/6

	CLOCK CYCLE PRIOR ART TEST METHOD	CLOCK CYCLE EXEMPLARY TEST METHOD
1	WRITE TO 1ST ADDR OF CHIPS A, B, C, & D	WRITE TO 1ST ADDR OF CHIPS A, B, C, & D
2	WRITE TO 2ND ADDR OF CHIPS A, B, C, & D	WRITE TO 2ND ADDR OF CHIPS A, B, C, & D
3	WRITE TO 3RD ADDR OF CHIPS A, B, C, & D	WRITE TO 3RD ADDR OF CHIPS A, B, C, & D
4	WRITE TO 4TH ADDR OF CHIPS A, B, C, & D	WRITE TO 4TH ADDR OF CHIPS A, B, C, & D
5	READ FROM 1ST ADDR OF CHIP A	READ FROM 1ST ADDR OF CHIPS A, B, C, & D
6	READ FROM 2ND ADDR OF CHIP A	READ FROM 2ND ADDR OF CHIPS A, B, C, & D
7	READ FROM 3RD ADDR OF CHIP A	READ FROM 3RD ADDR OF CHIPS A, B, C, & D
8	READ FROM 4TH ADDR OF CHIP A	READ FROM 4TH ADDR OF CHIPS A, B, C, & D
9	READ FROM 1ST ADDR OF CHIP B	READ FAIL FLAG FROM A
10	READ FROM 2ND ADDR OF CHIP B	READ FAIL FLAG FROM B
11	READ FROM 3RD ADDR OF CHIP B	READ FAIL FLAG FROM C
12	READ FROM 4TH ADDR OF CHIP B	READ FAIL FLAG FROM D
13	READ FROM 1ST ADDR OF CHIP C	
14	READ FROM 2ND ADDR OF CHIP C	
15	READ FROM 3RD ADDR OF CHIP C	
16	READ FROM 4TH ADDR OF CHIP C	
17	READ FROM 1ST ADDR OF CHIP D	
18	READ FROM 2ND ADDR OF CHIP D	
19	READ FROM 3RD ADDR OF CHIP D	
20	READ FROM 4TH ADDR OF CHIP D	

FIG. 2

3/6

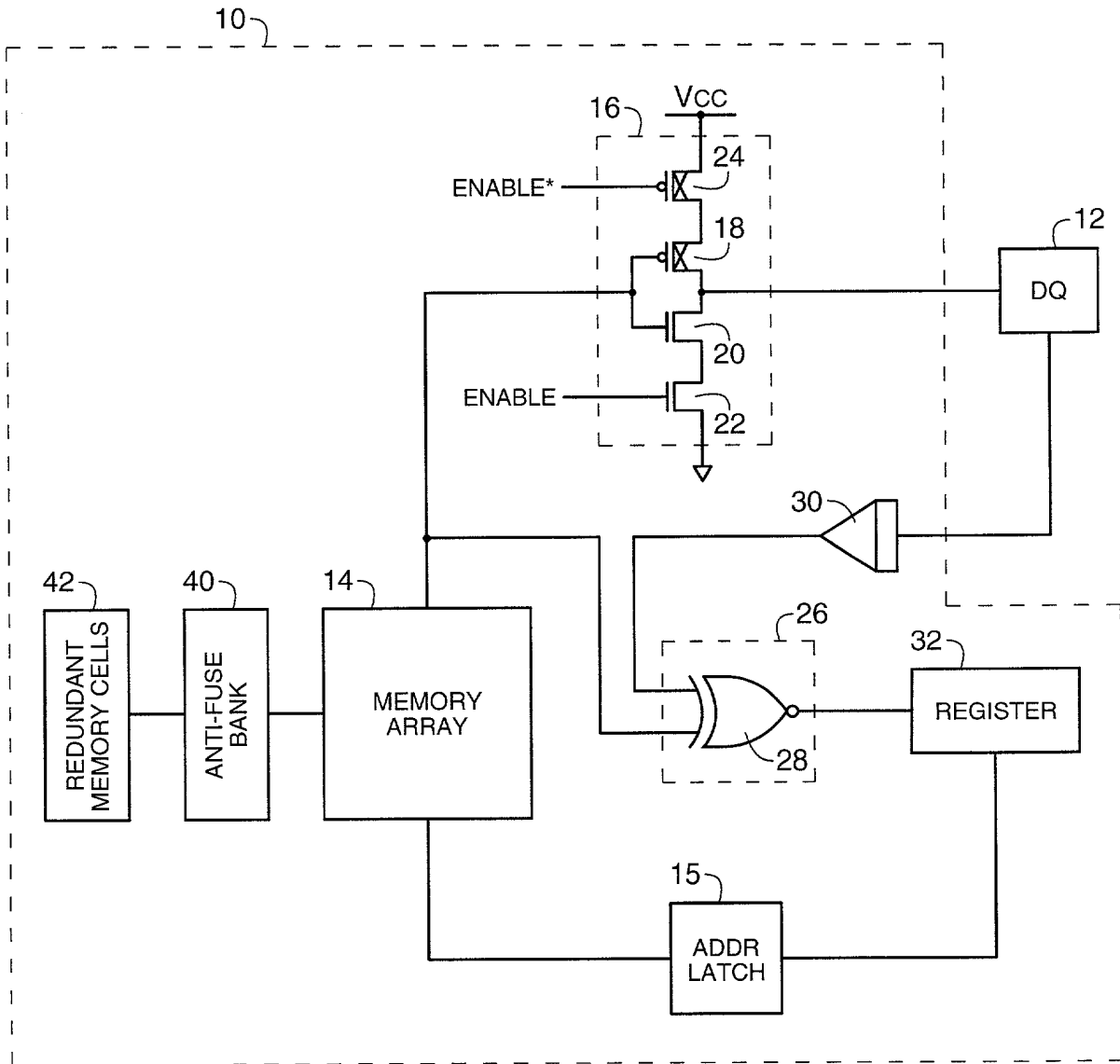


FIG. 3

4/6

	CLOCK CYCLE PRIOR ART TEST METHOD	CLOCK CYCLE EXEMPLARY TEST METHOD
1	WRITE TO 1ST ADDR OF CHIPS A, B, C, & D	WRITE TO 1ST ADDR OF CHIPS A, B, C, & D
2	WRITE TO 2ND ADDR OF CHIPS A, B, C, & D	WRITE TO 2ND ADDR OF CHIPS A, B, C, & D
3	WRITE TO 3RD ADDR OF CHIPS A, B, C, & D	WRITE TO 3RD ADDR OF CHIPS A, B, C, & D
4	WRITE TO 4TH ADDR OF CHIPS A, B, C, & D	WRITE TO 4TH ADDR OF CHIPS A, B, C, & D
5	WRITE TO 5TH ADDR OF CHIPS A, B, C, & D	WRITE TO 5TH ADDR OF CHIPS A, B, C, & D
6	READ FROM 1ST ADDR OF CHIP A	READ FROM 1ST ADDR OF CHIPS A, B, C, & D
7	READ FROM 2ND ADDR OF CHIP A	READ FROM 2ND ADDR OF CHIPS A, B, C, & D
8	READ FROM 3RD ADDR OF CHIP A	READ FROM 3RD ADDR OF CHIPS A, B, C, & D
9	READ FROM 4TH ADDR OF CHIP A	READ FROM 4TH ADDR OF CHIPS A, B, C, & D
10	READ FROM 5TH ADDR OF CHIP A	READ FROM 5TH ADDR OF CHIPS A, B, C, & D
11	READ FROM 1ST ADDR OF CHIP B	READ FAIL FLAG FROM A
12	READ FROM 2ND ADDR OF CHIP B	READ FAIL FLAG FROM B
13	READ FROM 3RD ADDR OF CHIP B	READ FAIL FLAG FROM C
14	READ FROM 4TH ADDR OF CHIP B	READ FAIL FLAG FROM D
15	READ FROM 5TH ADDR OF CHIP B	
16	READ FROM 1ST ADDR OF CHIP C	
17	READ FROM 2ND ADDR OF CHIP C	
18	READ FROM 3RD ADDR OF CHIP C	
19	READ FROM 4TH ADDR OF CHIP C	
20	READ FROM 5TH ADDR OF CHIP C	
21	READ FROM 1ST ADDR OF CHIP D	
22	READ FROM 2ND ADDR OF CHIP D	
23	READ FROM 3RD ADDR OF CHIP D	
24	READ FROM 4TH ADDR OF CHIP D	
25	READ FROM 5TH ADDR OF CHIP D	

FIG. 4

5/6

	CLOCK CYCLE PRIOR ART TEST METHOD	CLOCK CYCLE EXEMPLARY TEST METHOD
1	WRITE TO 1ST ADDR OF CHIPS A, B, C, D, & E	WRITE TO 1ST ADDR OF CHIPS A, B, C, D, & E
2	WRITE TO 2ND ADDR OF CHIPS A, B, C, D, & E	WRITE TO 2ND ADDR OF CHIPS A, B, C, D, & E
3	WRITE TO 3RD ADDR OF CHIPS A, B, C, D, & E	WRITE TO 3RD ADDR OF CHIPS A, B, C, D, & E
4	WRITE TO 4TH ADDR OF CHIPS A, B, C, D, & E	WRITE TO 4TH ADDR OF CHIPS A, B, C, D, & E
5	READ FROM 1ST ADDR OF CHIP A	READ FROM 1ST ADDR OF CHIPS A, B, C, D, & E
6	READ FROM 2ND ADDR OF CHIP A	READ FROM 2ND ADDR OF CHIPS A, B, C, D, & E
7	READ FROM 3RD ADDR OF CHIP A	READ FROM 3RD ADDR OF CHIPS A, B, C, D, & E
8	READ FROM 4TH ADDR OF CHIP A	READ FROM 4TH ADDR OF CHIPS A, B, C, D, & E
9	READ FROM 1ST ADDR OF CHIP B	READ FAIL FLAG FROM A
10	READ FROM 2ND ADDR OF CHIP B	READ FAIL FLAG FROM B
11	READ FROM 3RD ADDR OF CHIP B	READ FAIL FLAG FROM C
12	READ FROM 4TH ADDR OF CHIP B	READ FAIL FLAG FROM D
13	READ FROM 1ST ADDR OF CHIP C	READ FAIL FLAG FROM E
14	READ FROM 2ND ADDR OF CHIP C	
15	READ FROM 3RD ADDR OF CHIP C	
16	READ FROM 4TH ADDR OF CHIP C	
17	READ FROM 1ST ADDR OF CHIP D	
18	READ FROM 2ND ADDR OF CHIP D	
19	READ FROM 3RD ADDR OF CHIP D	
20	READ FROM 4TH ADDR OF CHIP D	
21	READ FROM 1ST ADDR OF CHIP E	
22	READ FROM 2ND ADDR OF CHIP E	
23	READ FROM 3RD ADDR OF CHIP E	
24	READ FROM 4TH ADDR OF CHIP E	

FIG. 5

6/6

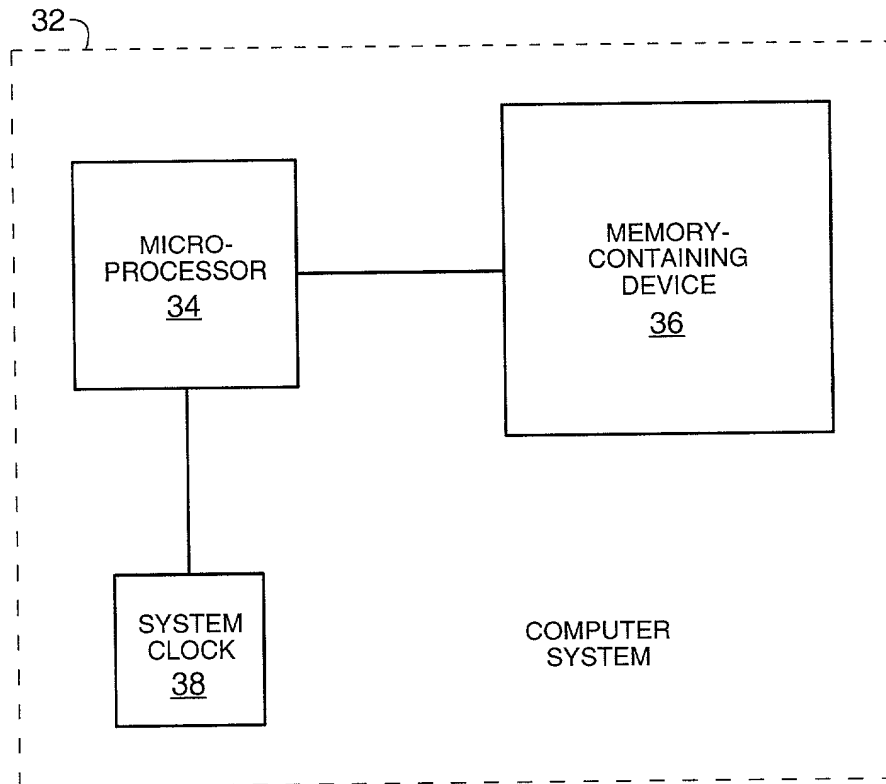


FIG. 6